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ABSTRACT

In order to study teenaged mothers' knowledge, expectations, and attitudes regarding parenthood, their support systems for coping with pregnancy and parenthood, and how these factors influence their actual parenting ability in interactions with their babies, ninety-eight female teenagers from diverse sociodemographic backgrounds were interviewed twice and videotaped interacting with their babies. The teenagers were interviewed individually, generally in their own homes, once during pregnancy and once following birth. Results are discussed in connection with the following questions: What are teenagers' expectations about how babies develop? How observant are they of infants and parent-infant relationships? What do they define as their information needs regarding infant development? Why do they say they want to have children? How do they see their lives as changing after they become parents? How confident are they about their ability to be parents? How important are families as sources of financial, child care and emotional support? What are teenagers' experiences with medical and health services, with school-age parent programs, and with other supportive services? How can teenagers' interaction styles with their babies be characterized? How does their knowledge of infant development, their expectations and attitudes about the role of parenthood, their family support systems, and non-familial support systems influence their interactions with their babies? (Author/SS)

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ASSESSING THE CHILD DEVELOPMENT INFORMATION NEEDED BY ADOLESCENT PARENTS WITH VERY YOUNG CHILDREN

Final Report

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Adolescent Parents and Infants Project
Final Report

Introduction

According to the most recent statistics (Zelnik & Kantner, 1978), 97% of the 600,000 teenagers who give birth annually in this country now choose to keep and rear their babies. How prepared are these adolescents, children themselves, to be parents? While an increasing body of literature is documenting the medical risks to mother and child (e.g., Baldwin, 1976; Crider, 1976; Eddinger & Forbush, 1977) and the long-term educational and economic handicaps faced by the teenage parent (e.g., Card & Wise, 1978; Chilman, 1976; Furstenberg, 1976; Moore, 1978; Trussell, 1976; and Ventura, 1977), little research exists on how prepared the young mother is to handle the role of parenthood itself. This, therefore, is the focus of the Adolescent Parents and Infants Project (APIP) study reported here. Specifically, we interviewed 98 teenagers from diverse sociodemographic backgrounds twice (during their pregnancies and at six months postpartum) and videotaped them interacting with their babies to explore:

(1) How much do teenagers know, and need to know, about infant development?

(2) What are teenagers' expectations and attitudes regarding the role of parenthood?

(3) What support systems within the family do teenagers have for coping with pregnancy and parenthood?

(4) What support systems outside the family do teenagers have for coping with pregnancy and parenthood?

(5) How do these four factors (knowledge of infant development, expectations/attitudes toward parenthood, support systems within the family, and support systems outside the family) influence teenagers' actual parenting ability in interactions with their babies?

The following project report begins with a selective literature review which focuses specifically on parenting and potential determinants of teenagers' parenting ability. As noted above, excellent reviews exist of the medical, social and economic consequences of early childbearing

and need not be repeated here. The literature review is followed by a description of the methodology we used to study teenage parenthood and includes information about the sample, research instruments, data collection procedures, and data analysis techniques. The research findings are then presented, organized to answer the five research questions stated above. Finally, our findings and their implications for programs, policies, and future research on adolescent parenthood are discussed.

Research Review

Relevant research on parenting and potential determinants of teenagers' parenting ability are reviewed below. Highlights of the current research findings are also cited as they support or contrast with the other studies summarized here.

Parenting

The ability of the teenage mother to be a "good" parent is a crucial aspect of adjustment to investigate because parenting skills have direct implications for the healthy physical and mental growth of the child. Qualities of the parent-child relationship are particularly important for the teenage family; a growing body of evidence (e.g., Carew-Watts, Barnett & Halfar, 1973; Elardo, Bradley & Caldwell, 1975 and 1977; Epstein & Weikart, in press; Gordon & Jester, 1972; White, 1977) now suggests that maternal behavior can overcome many of the developmental difficulties resulting from the social and economic hardships which children of teenage parents often face.

For example, numerous studies (e.g., Furstenberg, 1976; Sklar & Berkov, 1974; Trussell, 1976) have shown that the intellectual functioning of teenagers' offspring is significantly below that of their peers. Interpersonal factors, such as lack of stimulation by the teenage mother, are cited as playing at least as important a role as inadequate nutrition in limiting the child's cognitive growth (Sameroff & Chandler, 1975; Crellin & West, 1974). Major work (e.g., Clarke-Stewart, 1973; Hess & Shipman, 1965 and 1967; Hunt, 1961; Lewis, 1976; Piaget, 1952; Schaefer & Bayley, 1963; White, 1975) on the importance of experiences mediated through the parent from the prenatal to the preschool period therefore acquires even more significance when applied to the teenager and her child. Successful parenting by the teenage mother becomes the mechanism for reducing or averting the negative developmental consequences to her child and the associated costs to society's educational and related social institutions.

Specific qualities of the teenager's behavior which will support her infant's development may be identified by reference to the general body of parent-child interaction literature; few observational studies have been done with teenage parents themselves. The following dimensions appear to be particularly important in the parenting relationship:

- Verbal communication, or adult language, plays a central role in promoting the child's total development (e.g., see the reviews by Bruner, 1977, Clarke-Stewart, 1977; and Nelson, 1979). Interactions which provide information and use questioning strategies seem especially predictive of children's subsequent intellectual competence and ability to do well in school. The language patterns of teenagers are particularly salient for study because what little evidence there is indicates that teenagers talk less to their babies than older mothers (Osofsky & Osofsky, 1971; McLaughlin et al., 1978). The research reported here confirms this lack of verbal interchange for many mother-infant pairs at six months.

- Physical freedom to explore must be allowed by the teenager for it is through direct manipulation of materials that the child develops intellectually (Piaget, 1952; Hunt, 1961). Evidence from the current sample indicates three reasons why many teenagers do not provide their infants with this exploratory freedom. First, in reacting to videoclips of infants, teenagers often misinterpreted exploratory behavior as "naughty." Their self-reported mode of response would be to inhibit and restrict such activity. Second, we discovered that when teenagers become overconcerned with infants' safety, they fail to see the learning value of many developmentally appropriate manipulations and toys. And third, we find that teenagers greatly underestimate the mental abilities of infants and hence are unaware of babies' needs to explore and experience the complexities of their environment.

- Responsiveness to the infants' needs and abilities in a manner consistent with his/her developmental level is another important dimension of parent-child interaction (Gordon, 1977). The egocentrism or innerdirectedness of adolescence (Elkind, 1967; Erickson, 1950) may be incompatible with the sensitivity to others that is a precondition of such responsiveness. For example, data from the current sample show that teenagers often miss the cues that can tell them whether a mother's behavior "matches" the messages being sent to her by the baby. Without these observational skills which ordinarily permit parents to "tune into" their babies, teenagers cannot get the information that would allow them to be responsive to their infants' needs and abilities.

- Positive affect in a warm and loving atmosphere should accompany all the supportive verbal and physical interations described above. To the extent that such feelings are dependent upon the earliest mother-infant contact (Klaus & Kennell, 1970), there is speculation that the high incidence of perinatal complications places the teenager and her baby at risk for bonding. Analyses in the current sample, however, do not show this to be the case. On the contrary, the teenagers' overwhelming motivation to be "needed and loved" by their babies appears fulfilled in their emotional bonding at birth. Instead, difficulties in this loving relationship may first emerge during the early months of the infants' life. Unaware of the exciting developmental changes in her baby, the teenager may see only the infant's demands while missing the simultaneous gratifications necessary for a close relationship to continue building.

Influences Upon Parenting

Most directly, knowledge of infant development and attitudes toward parenthood can be expected to affect actual parenting ability. Teenagers are characterized as being unprepared for parenthood and hence likely to develop disturbances in the parent-child relationship. Teenage parents are said to be at particularly high risk for abusing their children. Spinetta and Rigler (1972) conclude that abusive parents expect too much, too soon from their children. De Lissovoy (1973), in one of the few studies of teenagers in the parenting role, also suggests that the source of child abuse among young parents is their impatience. Without appropriate expectations for age-specific patterns of child development, teenagers physically and verbally overdiscipline their children.

However, the popular notion of teenage parents as child abusers has not received support in well controlled and/or more recent studies (e.g., Gil, 1970; Johnson, 1974). Most earlier studies linked child abuse to prematurity and/or low birthweight, not the age of the parent per se (Crider, 1976). Although infants of adolescents are certainly at high risk for prematurity and low birthweight, there is by no means a one-to-one correspondence.

Moreover, evidence from the current APIP sample suggests that teenage parents are far more likely to expect too little, too late when it comes to the intellectual and social development of their infants. A card sorting measure revealed that many adolescents greatly underestimate the developmental abilities of infants, especially in the first year of life. Analogously, when we observe their interactions with their six-month-olds, we see young mothers who care well for their babies physically but

who understimulate them. Unaware of how much their babies can think and make sense of their worlds, the teenage mothers do little to support and enhance the growth of their infants.

Although the importance of family support systems is recognized in the sociological theory and research (e.g., Stack, 1974), little attention has been paid to the role of the family of origin in the teenage parenthood literature. Yet, at the time of the baby's birth, as many as 70% of the teenagers may be living at home (e.g., Combs, 1978; also true in the current APIP sample) and most remain highly dependent upon their parents for several years. For example, Furstenberg (1976) found that those teenagers living at home received significantly more money and child care support than those who left home and/or got married. As Baldwin (1976) notes, the girl who gets married assumes the new role of wife as well as mother and is unlikely to have the time and energy to cope with her own needs, especially completing her education. The teenager who remains at home does not even have to assume full responsibility for the baby if she can receive child care assistance from someone like the grandmother while she herself returns to school.

Another area in which the family of origin may offer support is in preparing the teenager for parenthood. In a small clinical study, Furstenberg (1978) found evidence that "the family greatly eased the transition to parenthood by providing child care instruction to the young mother as well as material assistance" (p. 29). His impression is supported by the present data; teenagers cited their parents as a major past and preferred future source of information about child development.

Clearly, the vast majority of teenagers in the current study are expecting continued financial as well as emotional support from their own parents. It is noteworthy that for the sample as a whole, the least important reason for having a baby is that "becoming a parent is part of growing up and establishing independence." For many teenagers, an unconscious reason for becoming pregnant may be to unite their family of origin as they deal with the "crisis" (Furstenberg, 1978). Half the teenagers in the APIP sample come from nontraditional (nonintact) homes, the way in which their families "pulled together" behind them is a theme often repeated during the interviews. The extent to which this early and anticipated support continues in the years following the baby's birth may be a crucial psychological determinant of the teenage mother's ability to support the development of her own child.

The father of the baby is also a figure often overlooked in the teenage parenthood literature. Research (e.g., Card & Wise, 1978) has documented the educational, economic and social difficulties encountered by the young father who leaves school to support his new family. Yet, there is virtually no information on how he fits into the support network of the teenage mother and how his presence or absence directly affects her

ability to parent. In most instances, in fact, contact with the baby's father is practically nonexistent by the time the child is three years old (Combs, 1978; Clap & Raab, 1978).

Evidence suggests that the unmarried teenage mother is more likely to finish school (Furstenberg, 1976; Chilman, 1979) and is actually less likely to be socially isolated (Cannon-Bonventre & Kahn, 1979). From this evidence one might infer that the single teenage mother will be the better parent, i.e., maternal education is positively related to supportive interaction styles (Brophy, 1970) and children's cognitive growth (Broman, Nichols & Kennedy, 1975), while social isolation has been increasingly cited as contributing to child abuse (Parke & Collmer, 1975; Light, 1973; Garbarino, 1976). In the current research we found that having sole responsibility for child care, though not marital status per se, was significantly associated with a more directive, demanding style of parenting. While no abuse was found in this sample, the incidence of this nonsupportive interactive style might well increase as their infants become toddlers among this group of teenagers receiving no child care assistance from parents, husbands, or boyfriends.

A great deal of theory and research has been marshalled recently to support the idea that comprehensive supportive services outside the home are critical determinants of a family's general ability to function and specific ability to rear its children (e.g., Goslin, 1976; Kenniston, 1977; Clarke-Stewart, 1977; Bronfenbrenner, 1977). There is evidence from several surveys (Baldwin, 1976; Eddinger & Forbush, 1977; Howard, 1978; Klerman & Jekel, 1973) that the vast majority of teenage parents do not have access to any comprehensive program of medical, educational, financial, psychological or family planning services. Current federal legislation (Public Law 95-626) is aimed at increasing the availability and coordination of these comprehensive services to the pregnant teenager and teenage parent.

As yet, no empirical research has examined the effects of increased availability of such services upon teenagers' parenting abilities. In the research reported here, however, we have begun to identify critical emotional, informational and logistical factors which can make these non-family systems truly supportive to the teenager as she tries to be an effective parent.

Methodology

Sample

Recruitment. Between October 1977 and February 1979 a total of 146 agencies and individuals providing educational, medical, social, family planning and/or other community services were contacted, informed about our research, and asked to help us locate eligible teenagers. All recruitment was done in a five-county area of southeast lower Michigan which includes urban, suburban, and rural locations. Any pregnant teenager, aged 19 years or younger, who was planning to give birth to and keep her first child was eligible for the study. Of these 146 contacts, 19 responded with one or more referrals. Additional teenagers were recruited by word-of-mouth, especially through girls already participating in the project. Out of a total of 141 eligible referrals, 98 teenagers agreed to be in the research project. The remaining 43 did not participate for the following reasons: teenager refused (15), parents refused (5)[1], husband refused (1), baby was born before prenatal interview was done (12), teenager could not be located at referred address (10). Strategies employed in the sample location process are further described in "Referrals, Contacts and Interview Techniques in Doing Research with Teenage Parents" (Court & Crawford, 1979, Attachment A).

Eligibility was by no means confined to those teenagers already receiving services. On the contrary, great efforts were extended to locate pregnant teenagers who were isolated from available services and to put them in touch with those service providers who requested us to act as liaisons in exchange for their assistance with recruitment.

Of the final sample of 98 adolescents, over 85% were located through their participation in a school-age parent program or medical clinic for pregnant teenagers. As a group, their access to the supportive services which might favorably influence their adjustment to parenthood was therefore higher than one would find in a more representative national sample. In the current research, however, the nonrepresentativeness of the sample in this domain actually increased our ability to explore the influence of nonfamilial support systems upon teenagers' parenting. We found that participation in programs and services varied from noninvolvement to high dependence. Moreover, because the sample was so diverse with regard to other sociodemographic characteristics (see below), they afforded a unique opportunity to explore those factors above and beyond the comprehensive services currently being funded which play a vital role in determining teenagers' adjustment to parenthood *per se*.

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[1]Parental permission was required for teenagers under 18 years of age.

Sociodemographics. The 98 teenagers in the sample all gave birth to their first child between February 1978 and March 1979. Data collected during prenatal and six-month postnatal interviews indicate the following sociodemographic profile of the sample:

- Age. In their last trimester of pregnancy, teenagers ranged from 14 to 19 years old with a mean age just over 16½ years.

- Education. Average education completed before birth was tenth grade. At six months postpartum, average education completed was an additional half-year of school. As parents, about one-fourth of the teenagers in the follow-up were attending school. Approximately one-third who had attended while pregnant were no longer in school--half of these had graduated and the other half had dropped out. All but three of the teenagers, however, expressed a desire to at least finish high school and a sizeable number (18% each) hoped to graduate from 2-year or 4-year colleges.

- Ethnicity. Fifty-seven percent were white; with two exceptions (One Hispanic and one Hawaiian) the rest of the sample were black.

- Socioeconomic status. Half the sample were from working class families, half from middle class, as defined by parental education and occupation, and household density. Ethnicity and SES were independent of one another.

- Employment. During pregnancy about one-fifth of the teenagers were employed, primarily in unskilled or semiskilled jobs. This picture was essentially the same at six months postpartum. When asked about their long-range plans, however, close to 87% hoped to be working within the next five years. Moreover, future plans for many of these teenage mothers included skilled (25%), managerial (3%) or professional (10%) positions.

- Teenage fathers. Although the fathers were not interviewed directly, some demographic information was obtained during interviews with the mothers. Teenage fathers in the sample had completed an average of eleven years of school. One-quarter were employed, with almost all of these working in unskilled or semiskilled jobs.

- Marital status. One-fifth of the teenage mothers were married before the baby's birth. All others were single (never-married). At six months postpartum, an additional 3% had gotten married while 3% of those previously married were divorced or separated.

- Residence. During pregnancy, almost 70% of the teens lived with their parents; an additional 8% lived together with their parents and the baby's father. Concerning postpartum living arrangements, 54% of the teen parents were living with their parents; an additional 11% were living with parents and the baby's father; 16% of the sample were living with just the baby's father; 3% were living alone; and the remaining 11% were residing with other family members and/or friends.

- Family size. The teenagers came from relatively large families. On the average, they were one of five children.

- Parents' marital status. Half of the teenagers came from nontraditional or nonintact homes, i.e., families characterized by divorce, separation, or never-married parents. This rate is about 12% higher than comparable national statistics.

- Infant demographics. Birth data were available for 97 of the 98 teenagers. Of these, 40 had boys, 53 had girls, 2 had twins (boy-boy and boy-girl pairs), and there were 2 infant deaths. Infants were generally healthy, at least according to the mothers' reports; half of the mothers reported no infant health problems at or following birth. About one-sixth reported serious health problems (e.g., low birth weight, blocked esophagus, cataracts, bacterial meningitis, spiriocytosis) while the remaining 33% of the infants developed only minor ailments such as infections or viruses. The relatively low incidence of prematurity, low birth weight, and birth defects typically associated with teenage parenthood may be a function of the relatively high degree of health care information and usage in this sample. (See the Results section, Support Systems Outside the Family, for details on health care services.)

Sample attrition. Of the original prenatal sample of 98 teenagers, 80 mothers and their infants participated in the postnatal interview. Techniques employed in re-locating and maintaining contact with teenagers and their families are discussed in Attachment A. Reasons why 18 adolescents and infants did not participate in the follow-up interview were: refusal (2), infant death (2), moved to another state (4), and unable to locate (10).

Interview procedures

Teenagers were interviewed individually, generally in their own homes, although an alternative setting (e.g., a schoolroom) was occasionally

chosen by a pregnant girl. Two interviews were conducted with each teenager: the Prenatal Interview was done during the mother's last trimester of pregnancy; the Postnatal Interview was done when her baby was approximately six months old.[1] During this second interview, each teenager was also videotaped interacting with her baby during routine caregiving activities.[2] The content of these interviews is elaborated below (see Interview Instruments).

Although this research project was not funded to provide direct service, project staff felt it was important to give teenagers indirect service in exchange for their cooperation with the study. Whenever teenagers asked interviewers about available services or mentioned specific needs for help, interviewers provided them with a Community Resource Referral List (Attachment B) and discussed various options with them. Acting as liaisons between the adolescents and service providers also helped interviewers to establish rapport and trust with the teenagers. Other ways of maintaining the interviewer-adolescent relationship are suggested in Attachment A.

Interview Instruments

The Prenatal Interview (Attachment C) consists of various questions and activities that were designed to measure:

- Sociodemographic and descriptive characteristics such as age, ethnicity, socioeconomic status, geographical residence, and level of education;
- Knowledge of infant development including teenagers' own perceptions of their information needs as well as objective knowledge assessments;
- Attitudes and expectations regarding parenthood including motivations for having the baby and anticipated and actual changes in lifestyle and interpersonal relationships following the baby's birth;
- Family support systems including emotional, financial and child care assistance provided by the teenager's parents and the baby's father; and

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[1]Because of occasional delays in locating and interviewing teenagers, the average age of the babies at this postnatal follow-up was actually closer to 7 months.

[2]Two teenagers who completed the Postnatal Interview were not videotaped. In one instance, there was an equipment malfunction and the teenager could not be relocated to repeat the videotaping. In the second case, the teenager claimed to have a phobia about picture-taking; apparently this was not just a refusal to be videotaped in a parenting role because this teenager has also refused to have her senior class picture taken.

- Supportive services outside the family including the full range of educational, financial, medical, psychological, employment, child care, and family planning services which a community might provide.

The Postnatal Interview (Attachment D) examined these same dimensions at six months postpartum and also included:

- questions about the birth experience and characteristics of the baby; and

- videotaping of the mother and her baby.

Specific questions and variables in the interview will not be comprehensively listed here. In most cases, these are self-evident from examining the interviews themselves. When further description is required, this will be provided in the presentation of results. However, two of the measures used to assess knowledge of infant development (the Knowledge Scale and the Infant Education Interview) and the category system for coding videotapes (Parent-Child Interaction Checklist and Ratings) do merit elaboration here. Complete administration and coding manuals for these three instruments are also included as Attachments E, F and G, respectively.

Infant Education Interview. The Infant Education Interview (IEI) makes use of videotape clips to measure how observant the teenager is of infants' activities and how sensitive she is to the fit between a mother's behavior and her baby's developmental level. Teenagers are shown 16 videoclips selected to represent a range of appropriate and inappropriate infant activities and mother-infant interactions. After each of the first eight clips, teenagers answer the question: "What is the baby doing and why?" After each of the second eight clips, they respond to: "Would you do the same thing or something different than this mother and why?" Their answers are subsequently rated, by trained and reliable coders, to reflect levels of awareness of infant development and the role of adults in facilitating that development.

Knowledge Scale. The Knowledge Scale (KS) uses a card sorting technique to measure how appropriate teenagers' expectations are regarding infant development during the first two years of life. They are read a total of 73 cards, each describing a particular need or ability of infants and toddlers, and asked to sort each according to the age they think the behavior described would first appear. Sorting is by intervals derived from Piaget's substages of sensorimotor development; each interval spans approximately four months to acknowledge individual differences in development. The scoring procedures are designed to yield more than just a measure of the number of "correct" answers. More importantly, scores also indicate the direction (early or late) and extent (one or more intervals) that characterizes inappropriate expectations.

Parent-Child Interactions Checklist and Ratings. Actual parenting skills at home are observed using the Parent-Child Interaction Checklist (PCIC), a category system to describe teenagers' behaviors with their young children during routine caregiving activities. Teenagers are videotaped by the interviewer as they feed and/or diaper their babies. Their verbal and physical interactions are subsequently coded using categories of behavior known to help or restrict the development of young children. Verbal behaviors include giving the child information, questioning the child, ordering or directing the child to do or not do something and using sounds to monitor the child's actions. Physical behaviors include doing things for the child which she/he cannot do alone, doing things to the child instead of allowing him/her to try them alone, sharing activities with the child, and visually monitoring the child's actions. Each verbal and physical behavior is further described according to its affective or emotional tone and whether the parent initiated the behavior or responded to the infant. Finally, in order to capture more global qualities of the observed caregiving situation, Parent-Child Interaction Ratings (PCIR) are completed at the end of the videotape. These ratings describe such dimensions as comfort and safety of the situation, appropriateness of the level of stimulation in the environment, the effectiveness of the parents' intervention strategies, facilitation of children's problem-solving activities, and the parents' overall sense of enjoyment in the child.

Analysis Procedures

Scoring. As noted above, many of the variables derived from the interviews were essentially self-scoring (e.g., age, number of years in school completed, perceived importance of obtaining specific types of child development information, number of prenatal obstetrical visits, degree of satisfaction with services used, etc.). For open-ended questions (e.g., description of hospital experiences during and following labor and delivery, impressions of how life will/did change after having a baby, reasons for dis/satisfaction with supportive services, etc.) post-hoc quantitative and/or qualitative scoring categories were constructed, as appropriate. A computer program was developed for calculating all the expectation scores from Knowledge Scale answers. Trained and reliable coders scored the Infant Education Interview responses and the Parent-Child Interaction Checklist and Ratings videotapes. Additional scores derived from these latter instruments were also calculated using computer programs.

Analyses. Three overall statistical strategies were employed in analyzing the data to answer the five research questions regarding teenage parents' knowledge of infant development, attitudes/expectations regarding parenthood, family support systems, nonfamily support systems, and influences upon parent-child interaction styles.

- A large number of analyses may be grouped under the general heading of descriptive statistics. These analyses were employed primarily in addressing the first four research questions. Their results provided such information as relative amounts of knowledge in different areas of infant development, or extent and variety of child care arrangements.

- Factor analysis was employed as a data reduction technique to identify patterns of parent-child interaction styles within the Checklist/Rating variables.

- Correlations and analyses of variance were performed to answer the fifth question, i.e., to examine the various psychological and social influences upon these parent-child interaction styles.

Specific analysis techniques will be described, as necessary, in the presentation of results below.

Results

The research results are presented to answer the five questions addressed by this study of teenage parenthood.

(1) How much do teenagers know, and need to know, about infant development?

What are teenagers' expectations about how babies develop?

Pregnant teenagers and teenage parents expect too little, too late from newborn babies. We found that needs and abilities, especially those related to the cognitive and social growth of infants in the earliest months of life, are greatly underestimated by adolescents.

This finding that teenagers underestimate infants' needs and abilities showed up most clearly in the card sorting measure. When we compared mean scores on appropriate versus early versus late expectations, we found that the number and extent of late expectations far exceeded the other two. On the other hand, early expectation scores (too much, too soon) were the lowest.[1]

Expecting too little, too late was not characteristic of teenagers' knowledge in all areas of development, however. In fact, when we looked at their card sorts on items about basic care, health and nutrition, and perceptual and motor development, we discovered that their expectations are quite accurate. By contrast, when we looked at how they view infants' needs and abilities in the areas of mental development--cognitive, social and language--it is here that we find teenagers attributing skills to babies many months too late.[2] And, not surprisingly, our analyses show that it is the younger infant--birth to 8 months--who is most likely viewed as a creature of physical needs and growth without corresponding mental activity.[3]

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[1]Mean scores: Late = 51.3, Appropriate = 26.6, Early = 18.4; t's = 10.40 and 9.25, $p<.001$ for Late vs. Appropriate and Appropriate vs. Early, respectively.

[2]Late Expectations for Mental = 37.6, Physical = 8.2, and Basic Care = 5.5; t's = 32.7 and 5.9, $p<.001$ for Mental vs. Physical and Physical vs. Basic Care, respectively.

[3]Late Expectations for 0-8 months = 47.2 and 8-24 months = 4.2; t = 22.0, $p<.001$.

How observant are teenagers of infants and parent-infant relationships?

This view of the infant as a mere eater-eliminator-sleeper was also evident in teenagers' responses to the videotape measure. Mean ratings, both pre- and postnatally (range = 2.33 to 2.48), indicated they could neither observe the signs of learning in babies nor recognize the appropriate activities by which adults support this learning. Infants studying and exploring objects were often described as "doing nothing" or at best "just playing". Nor was this an artifact of verbal fluency--lengthy responses were also given to describe why babies never do anything. Mothers engaging infants in mutual games were seen as "pushy" or "controlling" while infants' attempts to lure their mothers into games were misinterpreted as signs of hunger or fatigue or just plain "naughtiness". Further, a singular concern with safety may prevent teenagers from simultaneously seeing the developmental appropriateness of many toys--they would say "he could choke if he bit off a piece of that nerf ball" or "she might poke her eye out with that stacking post".

Significantly, the more teenagers underestimate babies' abilities on the card sorting measure, the less observant they are of infants' actual skills and mothers' teaching strategies on the videotapes (r's = -.40 to -.47, $p<.001$). Moreover, while developmental expectations (card sorts) themselves were unrelated to the mother's age, the ability to observe and interpret infants' learning increased significantly with the age of the teen parent (r's = .42 prenatally and .47 postnatally, $p<.001$). This also meant that the capacity to modify one's expectations after actually becoming a parent and observing one's own baby was also a function of age, i.e., only for older teenagers did we see any significant improvement on measures of infant development knowledge from the pre- to the postnatal assessment.

What do teenagers define as their information needs regarding infant development?

On the brighter side, when we analyzed domains in which teenagers most wanted additional information, cognitive development ("how babies think and learn and sort out their worlds") was rated highest and significantly more important than all other areas both prenatally and postnatally. Moreover, in rating the parenting skills of themselves, their mothers and their fathers, the main area in which adolescents hoped to do a better job than both of their parents was "helping to develop the child's mind and taking an interest in what the child learns."

Regarding other information needs, prenatal care understandably became less important after the baby was born, while information about motor development as well as cognitive development was seen as increasingly necessary. Information about basic care, health and nutrition, and social development were seen as adequate and moderately important to

obtain at both interviews. Finally, in response to an open-ended question about other areas of needed information, the most common answer (about 10% of the sample) both pre- and postnatally was "recognizing and caring for a sick baby." Other, although infrequent, responses included obtaining more information about what toys are best at different ages, how to not "spoil" a baby, how to be a single parent, and how to arrange for day care.

(2) What are teenagers' expectations and attitudes regarding the role of parenthood?

Why do teenagers say they want to have children?

Although 83% of the sample said the pregnancy was unplanned, all of the teenagers reported that their babies were nevertheless wanted. The most important reason teenagers gave for having their babies was to have someone who needed them and would love them. This new emotional commitment was often expressed as "having to care about someone other than myself" and this was frequently accompanied by statements to the effect that "having a baby means not being lonely anymore."

Least important as a motivation for parenthood was growing up and establishing independence, a finding supported by the reality that most of the teenagers remained highly dependent upon their own parents. On the other hand, half the teenagers spontaneously voiced a readiness to accept the "increased responsibility" and "maturity" which they felt having a baby required of them.

How do teenagers see their lives as changing after they become parents?

The expectation that parenting means establishing a new love relationship also appears to be a central factor in how teenagers think parenthood will affect their general emotional states. When asked during pregnancy how they thought their lives would change after the baby was born, the response consistently rated as increasing was "feeling good about myself." At six months postpartum, teenagers indeed reported significant increases in self-esteem since the baby's birth.

In only one area of their lives did teenagers consistently predict, and find, that having a baby would restrict them, i.e., parenthood meant going out and doing things with friends less often. For interpersonal relationships with their own parents and with the baby's father, however, teenagers neither anticipated nor experienced any significant changes from the period of pregnancy to the advent of parenthood. It may be that

the emotional terms of these relationships were set when issues surrounding the pregnancy itself were resolved and/or changes in these relationships would not emerge until the baby was older.

One other important change that 25% of the sample spontaneously cited was that having the baby meant they needed to do more with their lives, finish school and get good jobs. This motivation is consistent with the educational and employment aspirations described earlier (Sociodemographics). On the other hand, there is a potential source of frustration because the one area of their lives where teenagers' prenatal expectations were not met by postnatal reality was "being able to achieve something at school and/or work." Parenthood was seen as significantly lessening their ability to achieve these goals than they had thought it would.

How confident do teenagers feel about their ability to be parents?

In both prenatal and postnatal interviews, positive attitudes about their parenting abilities outweighed negative thoughts by a ratio of three to one. Comparing how they thought their own childrearing skills would stack up against those of their parents, teenagers generally rated their fathers as worst (note: the high incidence of nonintact homes meant correspondingly high rates of father absence or infrequent contact), their mothers as quite good, and wanted themselves to be best. In particular, as cited above, teenagers hoped to improve most upon their own upbringing by supporting the development of their children's minds.

Lack of confidence was expressed by 8% of the sample as unresolved conflicts with their own parents over how to raise their babies. This inability to accept and/or to adapt childrearing advice was in contrast to the larger group (20%) who spontaneously attested to the enormous support and childrearing assistance of their own parents. In fact, the sample as a whole identified parents as the single most important source of whatever child development and childrearing knowledge they possessed as they first assumed the parenthood role. The criticality of family support systems in adolescents' adjustment to pregnancy and parenthood is explored in the next section.

(3) What support systems within the family do teenagers have for coping with pregnancy and parenthood?

How important are families as a source of financial assistance?

Postnatally, close to 25% of the teenagers cite their parents as a major source of monetary support for themselves and their babies. Surprisingly, over twice as many (53%) say the baby's father is a primary or secondary provider of money and more than half of these are single parents. The teenage mothers depend in whole or part upon their

own income or savings in one-fifth of the cases, while other family members (e.g., siblings, aunts) or close friends are cited by less than 3% of the sample. Comparing their prenatal expectations for support with the postnatal reality, we find that parents, teenage fathers and their own income all contribute less (5%, 6%, and 10%, respectively) than the teenage mothers had anticipated.

The difference is compensated for by more dependence upon government monies (e.g., AFDC, WIC, and food stamps) than the teenagers originally anticipated. Government support is cited as often as assistance from the teenage fathers (i.e., 53% of the sample). Data on the actual amount of support were not collected. It should be recalled, however, that while teenagers in this sample are currently dependent upon welfare, the aspiration of nearly 87% of the sample is to be self-supporting within five years. Only longitudinal follow-up can determine how many teenage mothers actually achieve this goal.

How important are families as a source of child care assistance?

For the 48% of the sample who say they depend upon others for child care either part (40%) or most (8%) of the time (i.e., while at school and/or work), families are almost the only source of assistance. Further, in virtually every case, child care by family member was at no cost so that this becomes a major source of "in kind" financial support for many teenagers.

Reversing the ratio found for other financial assistance, grandparents provide twice as much child care as teenage fathers (33% versus 16%). Predictably, the teenager's own mother was the most frequent helper, providing daily child care for over a quarter of the sample. When teenage fathers did assist in child care, however, they appeared to get involved in all aspects of basic care (feeding, diapering, and bathing) as well as playing with their babies and taking them on outings (especially driving or shopping). Other relatives helped with child care as often as the teenage fathers (16% of the sample), while private child care for which the teenage mother (and/or welfare) paid was used by less than 3% of the adolescents.

Comparing expected (prenatal) versus actual child care arrangements, the biggest differences were that many more teenagers (29% expected versus 52% actual) found themselves as sole caregivers while fewer teenagers (48% expected versus 33% actual) found that their parents were forthcoming with the assistance they expected. Although we did not collect data relevant to the following speculation, it is possible that grandparents provided more assistance immediately after the baby was born but that as the infant's mobility/demands began to increase the regularity of this assistance declined. Interestingly, teenage mothers were most accurate in predicting whether teenage fathers would help with child care; the

anticipated and actual percentage was the same (i.e., 16% of the sample). While other relatives actually provided child care for 5% more of the teenagers than anticipated, private day care and day care in a school setting were used less often (3% and 8% less, respectively). Lack of funds for the former and lack of availability of the latter were cited as reasons.

How much emotional support do teenage mothers get from their families?

As with child care, the teenager's own mother is her main source of emotional support. Nearly 64% of the sample gave their relationship with their mother the highest rating, while an additional 30% described it as at least "good" or "okay". As noted earlier, teenagers also rated their mothers quite highly as childrearers, and it is possible that a halo effect is operating as teenagers identify with their own mothers in the early months of parenthood. Again, in contrast, the teenagers' fathers did not measure up as well as sources of emotional support just as they were found lacking as childrearers. While "very good" and "satisfactory" ratings did each account for a third of the daughter-father relationships, 12% reported a very poor relationship (versus 2% for mothers) and 18% never saw their fathers (versus 4% who never saw their mothers). Interestingly, the teenagers on the average reported the baby's paternal grandmother (i.e., the baby's father's mother) to be as good a source of emotional support as their own fathers, even for a large number (30%) of the unmarried adolescents.

About half of the teenage mothers also felt that they got emotional support from the baby's father--this includes the quarter of the sample who were married and another quarter who reported regular (i.e., three or more times a week) contact with the father. For the remaining half of the sample, teenagers were equally divided between those who never saw the baby's father and those who reported only rare or occasional visits so that he could see the baby.

(4) What support systems outside the family do teenagers have for coping with pregnancy and parenthood?

What are teenagers' experiences with medical and health services?

Teenagers' experiences with medical support systems are reported here for prenatal, birth and hospital, and postpartum care. The sample as a whole appeared to receive excellent prenatal care. Their first visit to an obstetrician occurred anywhere between the first and seventh month of pregnancy with a mean at the beginning of the third month. The total number of prenatal visits ranged from 4 to 27 with a mean close to 12

visits. Although teenagers' health care was thus well provided for, our findings about the medical profession as a source of child development information were more discouraging. Out of nine potential sources, teenagers rated the medical profession (doctors, hospitals, clinics, and other agencies) as the eighth most frequent provider of such information. This low ranking as a source of child development knowledge was even found for the 15% of the sample who participated in some type of medical program (e.g., a prenatal clinic) especially designed for adolescents.

It is also evident that the medical profession might play a more active role in discouraging teenagers from smoking, particularly during pregnancy. In our sample, 31% of the adolescents smoked while pregnant (half were heavy smokers; half light to moderate). While another 34% did stop or cut down during pregnancy, most of these did so because it made them feel sick. Only 18% of the sample said they were concerned about the effects of smoking upon the development of the fetus and even there, school programs rather than doctors seemed to be the source of this pressure.

The teenagers in the sample delivered their babies at a total of 19 different hospitals so that our results on birth and hospital experiences reflect a wide range of practices in southeast lower Michigan and northern Ohio. Again, from a purely medical perspective the hospitals received generally good marks. Overall, teenagers averaged between moderate and high satisfaction with their hospital stay, although 8% were not at all happy with how they were treated. Among the satisfied majority, the most common positive statement was that their physical experience, especially natural childbirth was much better than their initial fears had led them to expect. (Note: Only 6% of the infants were delivered by C-section; all the rest were vaginal deliveries). Emotionally, 84% of the teen parents described delivery as a "great experience" and only 4% felt "bad" or "unhappy" about the birth itself.

For those who expressed dissatisfaction with their hospital stay as a whole, unsympathetic staff and insensitive regulations were most often blamed for these negative feelings. Even among satisfied teenagers, several hospital procedures during and following delivery came up for criticism. First, half of the sample were alone in the delivery room (apart from hospital staff); those who were accompanied by the baby's father (23%), their own mother (23%), or another relative or friend (4%) felt better about their experience. Second, considering how important the emotional attachment with the baby is to these young mothers (see Attitudes Toward Parenthood), it is not surprising that many were unhappy that it was the person accompanying them, rather than themselves, who first got to hold the baby. Third, and unthinkable given all the concern about bonding in the literature, is that nearly half the sample reported that they did not get to hold the baby until the day following birth. Given the relatively healthy states of both mothers and neonates in this sample, there is no good medical reason for that statistic.

As a source of infant development information, maternity hospitals appear no better than providers of prenatal care. Mothers and babies spent an average of four days in the hospital; not one teenager reported receiving any child development information beyond instruction in basic caregiving (i.e., feeding, bathing and diapering) during her stay. Even with regard to feeding and nutrition, there is evidence that the medical profession might do more to support nursing among adolescent mothers. It is true that 23% of this sample breastfed their infants for an average of three months. But while encouragement for breastfeeding came from a variety of sources (mothers, teachers, teenage fathers, and friends), obstetricians and pediatricians were rarely cited among these supporters. Discouragement also came from various sources. Only a handful of teenagers mentioned "embarrassment" as a reason for not nursing, however; the majority gave reasons which indicated either a lack of information or misinformation. Ironically, much of the misinformation (e.g., being told her milk was "thin") originated with comments by the teenager's doctor.

Postpartum medical care was nearly as good as prenatal care. Of the teenage mothers interviewed, 89% went for a postpartum checkup themselves and 92% took their infants for well-baby examinations and routine shots. Evaluating their medical experiences as a whole (prenatal, natal, and postnatal) teenagers gave us two clear messages. First, a major distinction between "good" and "bad" care was the sensitivity and concern of the health providers. Second, the most important expression of concern was the provision of information--not only about the teenager and her body but also about the infant for whom she now found herself responsible. Although, as stressed above, information about their babies' growth and development was too rarely provided, teenagers were vocal in their appreciation of those doctors and nurses who did take the time to explain things and answer their questions. And, in rating sources of child development information, the medical profession moved from eighth place as a past source to a tie for second place (behind schools but equal to parents) as a preferred future provider.

Finally, our results indicate that medical service providers might also be more active in encouraging teenage mothers to begin using birth control. During the prenatal interview, all but 7% of the teenagers said they planned to use some form of contraception after the baby was born. But at six months pospartum, 35% were still not using any birth control including two teenagers who were pregnant again. Pills accounted for 80% of all contraceptive use with IUD's a distant second. Twice as many teenagers (14%) at this follow-up interview said they did not plan to use any contraception in the future. (Note: This was particularly true of the younger mothers whose reasons often included a denial of their sexuality, i.e., "I'm just not going to 'do it' anymore.") The motivations to use or not use contraception are admittedly complex. Yet, it is likely that at least some of the 21% intended users might be more vigorously supported by health care providers during those many months of delivering prenatal and postpartum services.

What are teenagers' experiences with school-age parent programs?

A school-age parent program was the nonmedical service used most by the teenagers in our sample, i.e., 71% reported participating prenatally and/or (to a much lesser extent) postnatally. As described above (see Sample) this was in large part a function of how we recruited our sample. Moreover, school programs were cited most often (by 54% of the sample) as the supportive service which the adolescents found to be most helpful; not a single adolescent placed her school-age parent program in the category of "bad services."

When asked why they would describe their school programs as good, virtually every participant praised the information they received. This information included facts about prenatal care and preparation for childbirth which alleviated anxiety for many of the adolescents. Further, schools were ranked second to, and not significantly different from, parents as a source of child development information; as a preferred future source schools were ranked first. Judging from the results of the various knowledge measures (see Question 1), schools are doing a good job of teaching prospective teenage parents about the health, nutrition and basic care needs of infants and about aspects of physical, if not mental, development.

Nearly half of the teenagers in the school-age parent programs also spoke highly of the supportive staff in these programs. Not only did the adolescents appreciate the sensitivity and nonjudgmental attitudes of counselors and teachers, they particularly valued the guidance they received about "negotiating the system." When the teenagers felt school staff had taught them how to handle the maze of the welfare and legal system, they in turn were able to take more responsibility for themselves and assume more independence in managing for themselves and their babies. And although the teenagers did not explicitly mention this, the fact that the educational aspirations of this sample were so high suggests that the school-based programs have been successful in impressing upon them the importance of education as a prerequisite to this eventual independence.

In fact, the only complaint about school-age parent programs was that the teenager could not continue in the program after the birth of the child unless she could arrange her own day care and return to school. Of the 15 school programs who referred teenagers for this study, only three had child care centers operating within the school setting itself. For the vast majority of adolescents using this type of supportive service, "school-age parent program" proved a misnomer; the service was more accurately a "school-age pregnancy program" although the message is clear that the teenagers overwhemingly desire continued support from this source.

What are teenagers' experiences with other supportive services?

Of all the other supportive services listed, only the WIC program (Women, Infants and Children food supplements sponsored by the U.S. Department of Agriculture) received a substantial number (20% of the sample) of "good" rankings. A few teenagers (<5%) also mentioned being pleased with CETA, Planned Parenthood, and their particular child care arrangements. In the "bad" services category, financial assistance (Department of Social Services, the welfare system in general) was nominated by an overwhelming 46% of the sample (out of 53% depending upon such support). Several teenagers (again, <5%) also mentioned bad experiences with a psychological counselor or social worker, while as many cited CETA or child care as unsatisfactory as had categorized it as a good service.

What are the characteristics of supportive services which teenagers liked? In addition to those same qualities valued in school programs (i.e., caring people and useful information), adolescents also appreciated a chance to share with other young parents like themselves, convenient transportation and coordination with other services such as medical and child care assistance, and free or low-cost provision of services.

What are the characteristics of supportive services which teenagers dislike? They voice strong criticism of providers who are either impersonal, too personal, or (occasionally) downright cruel. As parents, the teenagers also resent being given advice on what to do with their lives or how to raise their babies. Bad services are also those in which the teenager feels hassled by paper work, legal complications, transportation, waiting, and payment. Finally, a significant difficulty we discovered in this socioeconomically diverse sample is that 20% complained of "falling between the eligibility cracks" for many of the services needed by teenage parents. Not poor enough to qualify for many forms of public assistance, and yet without enough money from their own incomes or their families, this sizeable group of teenagers found themselves struggling along an ill-defined borderline.

During the interviews, 90% of the sample were able to name at least one "good" service. However, 60% could name a "bad" service as well. While these figures say that almost all the teenagers are benefiting from a minimum of one support system outside the family, they also say that too many are receiving inadequate help from a source or support upon which they and their babies are dependent.

(5) *How do these four factors (knowledge of infant development, expectations/attitudes toward parenthood, support systems within the family, and support systems outside the family) influence teenagers' actual parenting ability in interactions with their babies?*

How can teenagers' interaction styles with their babies be characterized?

Before examining influences upon parenting ability, a factor analysis of the videotape Checklist and Rating variables was performed to determine just what kinds of interaction styles we would find among our sample. A principle components analysis with varimax rotation identified three factors, accounting for 82% of the variance. These three factors were named:

(1) Sharing. Verbal interactions in this style of parenting included the categories of informing/explaining and questioning. Physically, mothers did things together with their infants in this style, i.e., they shared activities. In addition, this first interaction style was characterized by teenagers who stimulated their babies appropriately, knew when and how to intervene to change behavior, and evidenced clear enjoyment of their child through verbal and physical shows of affection.

(2) Directing. This second interaction style consisted of verbally ordering the baby to do or not do something and physically doing things to the infant, i.e., taking over rather than allowing the baby to act or explore on his/her own.

(3) No Talking. In this final style, the teenage mother did not engage in verbal interchange with her baby. The only form of interaction was physical in which the mother performed basic caregiving activities which the infant was not capable of.

Although the observation session was designed to elicit routine caregiving, the manner in which it was provided was wholly determined by the teenager herself (i.e., the shared or directive approaches described above could be used as well as the straightforward one characteristic of the third interaction category).

Consistent with the findings of other researchers cited at the beginning of this report, we found that the nonverbal interaction style was most characteristic of the teenagers (mean score = 47.5). This was followed in decreasing frequency by the shared and directive styles (means = 39.7 and 20.2, respectively). The directive style was significantly less frequent than either of the other two (t's = 7.29 and 7.34, $p<.001$ in comparison with the sharing and no talking, respectively), which approached ($p<.08$) but were not significantly different from each other.

Only the No Talking style was significantly related to age ($r = -.30$, $p<.01$), i.e., the younger the teenager the less she talked with her baby. No other significant relationships were found between interaction styles and demographic characteristics of ethnicity and socioeconomic status.

How does knowledge of infant development influence teenagers' interactions with their babies?

Expectations about how babies develop were significantly related to how teenagers behave with their infants. Those adolescents who underestimated infants' needs and abilities were also those who did not talk to their babies ($r = .31$, $p<.01$ for Late Expectations and No Talking). Those who overestimated what babies were capable of were also less sharing in their interactions ($r = -.23$, $p<.05$ for Early Expectations and Sharing). In the first instance (underestimation), teenagers may reason: Why bother to talk to my baby when s/he can't understand anyway? In the second situation (overestimation), the teenage parent rather than the infant may be the "demanding" one of the pair. That is, the mother may be expecting a performing and/or self-sufficient infant who relieves her of some parenting responsibilities rather than the mother seeing her own role as one of giving to and sharing with the baby.

Regardless of their prenatal expectations, teenagers who were able to use their observational skills once they became parents were those who interacted with their babies most supportively. The better adolescents were able to describe and interpret infants' actual learning on the videotape assessment, the more they shared in verbal and physical interchange with their own babies ($r = .25$, $p<.05$ for postnatal Infant Education Interview and Sharing).

How do expectations and attitudes about the role of parenthood influence teenagers' interactions with their babies?

Teenagers' motivations for having their babies were significantly related to their parenting styles. Interestingly, the more the teenager associated parenthood with becoming an "adult", the more directive she was with her baby ($r = .36$, $p<.01$), i.e., as though exercising adult "authority". The same "adult" motivation was negatively related to the nontalking interaction style ($r = -.31$, $p<.01$). This relationship was a function of age, i.e., "no talking" was more characteristic of the younger teenagers whereas becoming an independent adult was not of paramount importance for this age group.

Interestingly, non-talking teenage parents had also, when still pregnant, anticipated a breakdown in their relationship with their parents after the baby came ($r = .23$, $p<.05$). This too may have been a function of youth, i.e., the parents of the younger teenagers may have in fact

been more disapproving of the adolescents becoming parents so early in their lives. A nonverbal style with their infants and difficulties with their parents may also reflect more general communication problems for this group, i.e., they do not see talking as either a positive aspect of interrelationships or a technique for resolving problems.

How do family support systems influence teenagers' interactions with their babies?

The only factor that related significantly to teenagers' parenting styles was whether the new mother depended upon her family for help with child care. A "sharing" style was greatest for those who had part-time help from grandparents and/or the baby's father, as opposed to having either no help at all or full-time help (mean Sharing = 44.8, 32.7 and 33.2, respectively; t's for Part-time Help versus No Help and Full-time Help = 7.24 and 6.22, $p<.001$, respectively). By contrast, the "directive" style was more frequent for those teenage mothers who did all their own child care without either part-time or full-time assistance (mean Directing = 23.9, 13.7 and 13.5, respectively; t's for No Help versus Part-time and Full-time Help = 11.94 and 11.37, $p<.001$, respectively).

The above differences in interaction style according to family child care support suggest that either too much or too little involvement with her baby may be problematic for the teenage parent. If she is too involved, the young mother may feel she has lost a sense of direction in her own life (i.e., she is not free to go to school or work) and may therefore be overly directive with her baby. On the other hand, if the teenage parent is not involved enough (i.e., if the adolescent leaves her baby always in the care of others while resuming her own life as though nothing had changed), she does not have the chance to develop a mutual interactive style with her infant.

How do support services outside the family influence teenagers' interactions with their babies?

Neither type of service nor satisfaction with services used were significantly predictive of the adolescents' relationship with their babies. This finding, however, may be an artifact of the lack of variance in the sample. The overwhelming majority of school-age parent program participants (71%) and the very small number who reported no program involvement (13%) may have precluded our discovering associations which a more diverse sample would uncover.

The one significant and encouraging finding was that the longer teenagers had been in any prenatal program (school- and clinic-based), the less likely they were to later be non-talkers with their babies ($r = .30$, $p<.01$). Since it is reasonable that these prenatal adolescent programs focus first on the immediate needs, i.e., pregnancy and childbirth, and only secondarily on the parenting responsibilities which will follow later, it is logical that only teenagers with prolonged program involvement will be exposed to this latter area of childrearing information.

Summary and Conclusions

The major research findings are summarized and discussed below under three headings: preparation for parenthood, family support systems, and supportive services. The report concludes with a statement of the research implications for programs and policies designed for pregnant teenagers and teenage parents.

Preparation for Parenthood

(1) Pregnant teenagers and teenage parents expect too little, too late when it comes to the needs and abilities of their infants' mental development during the first year of life.

(2) Most teenagers do not use their own powers of observation to "tune into" their babies. Therefore, they do not change their expectations and behaviors to better match the messages their infants are actually sending them.

(3) Because they underestimate the mental activity of their babies, adolescent mothers often do not talk to or otherwise appropriately stimulate and support their babies' learning. Shared and reciprocal styles of interaction occur only infrequently. A non-talking style is especially characteristic of the younger teenage mothers. This is perhaps because they are most egocentric and, as the videotape measure revealed, significantly less observant of infants' behavior than older teenagers. The younger adolescent may also have less opportunity to develop a shared interaction pattern with her baby if others (e.g., family members) assume most of her child care responsibilities while she returns to school.

(4) On the brighter side, teenagers recognize the need for and want more information about how their babies think and learn and make sense of their worlds.

(5) Teenagers want to be good parents. Looked at from several data sources, the teenagers in our sample want to be able to provide for their babies financially, emotionally and intellectually. Most are confident of their ability to be good providers, although they recognize their own need to be simultaneously supported as they parent.

Family Support Systems

(6) Most teenage parents remain highly dependent upon their own parents in the months following the birth of their babies. For a quarter of the sample, this meant direct financial support, while for half the group indirect assistance meant parents provided a place to live.

Moreover, one-third received regular child care help, although it is noteworthy that nearly half had counted on such help when still pregnant. Finally, the teenager's mother was viewed by her as a most important source of emotional support during the pregnancy and the adjustment to actual parenthood.

(7) A large number of teenagers in this sample also found the baby's father to be supportive. While less than a quarter were married, over half of the adolescent mothers said the baby's father provided direct financial assistance. About half also saw him as a source of emotional support. A much smaller percentage (16%) of the teenage fathers provided regular child care but those who did seemed to get involved in all aspects of this care.

(8) Other relatives or close friends are also part of the teenagers' support system. While rarely a source of direct monetary aid, these individuals provide regular child care at no cost as often as the baby's father (for 16% of the sample).

(9) While this network of child caregivers appears crucial to the teenage mother's chance to return to school and/or go to work, there is evidence that too much assistance can be as problematic as none at all. To develop a sharing pattern of interaction with her baby, the adolescent mother must be able to balance her own personal growth with her new responsibilities as a parent. While no relief from child care appears to make her demanding and controlling toward her infant, no involvement in child care robs her of the opportunity to learn about her baby and support the infant's development.

Supportive Services

(10) Too many programs, expecially those based in medical centers or schools, end just at the time teenagers most need support. While services are available during pregnancy, the service itself ends (e.g., a prenatal clinic) or access to the services declines (e.g., a school program without an accompanying day care facility) soon after the baby is born.

(11) Health care in this sample was good from a purely medical perspective. However, it is clear that health professionals can do substantially more to educate teenage parents to support their infants' development (prenatally and in the year following birth) and to consider their own futures by using safe and effective means of contraception. Although the medical profession was ranked near the bottom as a past source of information for teenagers, it was placed near the top as a provider which adolescent parents would prefer in the future.

(12) The high rate of participation in school-age parent programs was a function of sample recruitment in this study. However, the high marks accorded these programs were an unbiased assessment by the adolescent participants. An important accomplishment of these programs is that they encouraged the eventual independence of the teenage parent. School counselors were frequently praised for teaching the adolescent how to "negotiate the system." Significantly, school-age parent programs have impressed almost all the teenagers in this group with the importance of finishing at least high school. School programs have also been a successful source of information regarding many aspects of child development--basic care, health and nutrition, perceptual and motor skills. Teenagers, however, would like to learn more about cognitive, social and language development and their own role as parents in supporting that development.

(13) Because half of the adolescents in our sample were from middle class backgrounds, we discovered that a significant number (20%) spontaneously complained of falling between the "eligibility cracks" in qualifying for needed services. Even more may have encountered this problem although they did not label it as such. For this group of teenagers and their babies, day-to-day coping was a struggle without benefit of either adequate family or nonfamily support systems.

Research Implications

The research implications of many of the findings presented above are self-evident. Certainly the need for a broad-based approach to services for teenagers is recognized in such national legislation as Public Law 95-626 (Adolescent Pregnancy Prevention) as well as in the comprehensive models being developed and piloted at the state and local level. It also comes as no surprise that teenagers value sensitivity, understanding and respect from those who are charged with providing these much-needed services.

However, it is necessary to stress three implications of the research findings which are often overlooked, if not actually defeated, by current practices:

First, policies and programs must make explicit the need to include child development information in services provided to teenage parents. It is striking that not one teenager reported receiving information beyond feeding, bathing, and diapering in the maternity hospital. It is inexcusable that P.L. 95 626 does not specifically include parenting education as either a "core" or a "supplemental" service--nutrition information and health care are listed, but providing the infant with these is only the first step in being a good parent. To truly support the growth of their babies, teenagers also need and want information about the complex mental and social changes in development. However, parenting education should provide teenagers with the information they need to examine and realize their own childrearing goals, not with directives on what those goals should be. Teenagers do think about what they want for their children; their values must be respected.

Second, policies and programs must acknowledge and support the role played by the teenager's family. The adolescent with a baby is a child as well as a parent. There is no wisdom in policies which require a teenager to leave home and give up a broad base of emotional support and in-kind services in order to qualify for fragmented financial assistance. It would make more sense for the adolescent's parents to receive some form of comprehensive assistance which better enables them to support their daughter as she finishes her education and develops as an individual. On the other hand, policies should not encourage the adolescent's total dependence upon her family when it comes to the area of child care. The teenager's responsibilities as a parent must be acknowledged and accommodated (e.g., by more school-based child care centers) in order for the adolescent mother to establish a supportive relationship with her infant. Responses to open-ended as well as structured interview items in our study indicate that most teenagers feel ready to accept the responsibilities of parenthood.

Third, policies and programs must provide continuity of care to pregnant teenagers and teenage parents. This continuity must encompass both the services themselves and, where possible, the persons who provide these services. Too often, teenagers feel cut off at six weeks post-partum from sources of help and information as they actually assume the role of parenthood. It is true that many fortunate adolescents have a strong relationship with their mothers or other family members to back them up during this adjustment. But there are also those who need and welcome this opportunity to "identify" with another adult such as a school teacher, counselor or nurse. Service programs must acknowledge that short-term dependence upon one such dedicated person may be the best chance the teenage parent has for long-term independence for herself and her child.

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